UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,948	06/11/2001	Kenneth H. Abbott	294438022US2	6459

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EXAMINER
HAILU, TADESSE

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 02/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

		Application No.	Applicant(s)
Office Action Summary		09/878,948	ABBOTT ET AL.
		Examiner	Art Unit	
		Tadesse Hailu	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>13 September 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>62-71 and 76-207</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>62-70,82-92,137-145,147-150,157-198 and 200-205</u> is/are allowed.

6)☐ Claim(s) <u>71,76-81,93-136,146, 151-156,199,206 and 207</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/19/04</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

1. This Office Action is in response to the Amendment entered on September 13, 2004 for the patent application number 09/427,680 filed on June 11, 2001.

2. The present patent application claims priority from US Application number 09/216,193 filed December 18, 1998.

3. The submitted Information Disclosure Statements on April 19, 2004 are considered and entered into the file folder.

4. The pending claims 62-71 and 76-207 are examined herein as follows:

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 71 and 199 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Even though the preamble of claims 71 and 199 recites a type of machine (a portable computer), the body of the claims does not support the preamble of each claims, that is, the body of the claims lack an essential element or feature (e.g., hardware) of the portable computer claimed.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6.   Claims 81, and 133-135 are rejected under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter. The preamble of each claims

recites "A computing device" and the body of the claim recites "module" or "component".

Since the claimed "computing device" could be either software or hardware and the

specification does not necessarily include hardware, the claim is non-statutory, because

it is not tangible.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed
publication in this or a foreign country, before the invention thereof by the applicant for a patent.

7.   Claims 76-81, 93-121, 123-125, and 127-136, 151-156, 206 and 207 are

rejected under 35 U.S.C. 102(a) as being anticipated by John Bates, et al., "Middleware

Support for Mobile Multimedia Applications," (1997).

With regard to claim 76:

Bates discloses a computer-implemented method for providing information

about a current state that is modeled with multiple state attributes, such as

location and nearby device to the user. The method of Bates includes receiving

an indication of an event that is related to at least one of the state attributes

(Bates, sections 1.1, 2.2, and 2.3, 5.2, Fig. 2).

Bates also includes determining that an occurrence of the event is of

interest if criteria related to the event are satisfied by the occurrence (Bates,

sections 1.1, 2.2, and 2.3, 5.2, Fig 2). Bates further describes the criteria is

based at least in part on one or more values of the at least one state attributes

and one additional information for each of the one or more values that describes

the values.

Bates also includes sending to Middleware support or trader (an

intermediary module) an indication of the event and of the criteria (Bates,

sections 2.2, and 2.3, Fig. 2);

Bates further includes after an occurrence of the event that satisfies the

criteria, receiving from the Middleware support or trader (intermediary module) a

notification of the occurrence (Bates, sections 2.2, and 2.3, Fig. 2); and lastly,

the method of Bates further includes performing processing based on the

received notification (Bates, sections 1.1, 2.2, and 2.3, Fig. 2).

With regard to claim 77:

As per "the method of claim 76 wherein the processing includes

presenting information to a user. " (Bates, sections 1.1).

With regard to claim 78:

As per "The method of claim 76 wherein the state attributes represent

information about a user of the computer." (Bates, sections 1.1, 2.4).

With regard to claim 79:

As per "The method of claim 76 including: sending to the intermediary

module an indication of a condition related to a value of at least one of the state

attributes; and receiving an indication from the intermediary module that the condition is satisfied. "(Bates, sections 1.1, 2.2, 2.4, 5.2 and .3, Fig. 1).

With regard to claim 80:

Claim 80 is computer-readable medium claim corresponding to method claim 76, thus, is rejected under the same rational.

With regard to claim 81:

Claim 81 is device claim corresponding to method claim 76, thus, is rejected under the same rational.

With regard to claim 93:

Bates discloses a method in a computer for providing information about a current state of the mobile user that is modeled with multiple state attributes, such as nearby devices to the user and location of the user (Bates, sections 2.2, 2.3, Fig. 2).

Bates also includes receiving from a client module or user a request to receive notification when a specified type of occurrence related to at least one of the multiple state attributes is detected (Bates, sections 1.1-2.4, Fig. 2). After receiving the request, detecting an occurrence of the specified type based at least in part on the received information (e.g., such occurrence event includes Davis may want to be notified when John moves (condition satisfied) to his room or to another room (Bates, sections 1.1-2.4, Fig. 2).

Bates also describes receiving information from a module (e.g., receiving location information from Location Service) that includes a value (e.g. John's

location as tracked by his badge or by video camera) of the at least one state

attributes (John's whereabouts) and additional information (e.g., describing

proximity or location value of John, section 4.2, paragraph 4) that describe the

value.

With regard to claim 94:

As per "The method of claim 93 wherein the detecting of the occurrence

includes monitoring occurrences." (Bates, sections 2.2, 2.3, Fig. 2).

With regard to claim 95:

As per "The method of claim 94 wherein the monitoring includes detecting

changes in the modeling of the current state."(Bates, sections 2.2, 2.3, Fig. 2).

With regard to claim 96:

As per "The method of claim 93 wherein the specified type of occurrence

is satisfaction of a condition related to a value of at least one of the state

attributes, and wherein the detecting of the occurrence includes analyzing

changes in the values of the at least one state attributes in order to determine

when the condition is satisfied."(Bates, sections 1.1-2.4, Fig. 2).

With regard to claim 97:

As per "The method of claim 96 wherein the condition relates to a

specified one of the state attributes having a specified value."(Bates, sections

2.2, 2.3, Fig. 2).

With regard to claim 98:

As per "The method of claim 93 wherein the module is a source of values

for at least one of the state attributes."(Bates, figs. 5, and 6).

With regard to claim 99:

As per "The method of claim 93 wherein the module is a consumer of values for at least one of the state attributes." (Bates, sections 2.4, and 5.2).

With regard to claim 100:

As per "The method of claim 93 wherein the specifying of the type of occurrence includes specifying criteria that define the type of occurrence, and wherein the specified type of occurrence includes satisfying the specified criteria." (Bates, sections 2.2-2.3).

With regard to claim 101:

As per "The method of claim 100 wherein the specified criteria are not satisfied by the modeled current state at a time of the receiving of the request." (Bates, sections 1-1-2.3).

With regard to claim 102:

As per "The method of claim 100 wherein the specified criteria is a change in a value of a specified state attribute." (Bates, sections 2.2-2.3).

With regard to claim 103:

As per "The method of claim 93 wherein the specified type of occurrence includes a source becoming available to supply values for a specified state attribute."(Bates, section 2.2).

With regard to claim 104:

As per "The method of claim 103 wherein the detecting includes

identifying receipt of a value for the specified state attribute." (Bates, sections

1.1- 2.2).

With regard to claim 105:

As per "The method of claim 103 wherein the detecting includes

identifying receipt from a source of an indication of an ability to supply values for

the specified state attribute."(Section 1.1, fig. 1).

With regard to claim 106:

As per "The method of claim 93 wherein the specified type of occurrence

includes availability of a value of a specified state attribute that satisfies a if

specified criteria." (sections 1.1-2.3).

With regard to claim 107:

As per "The method of claim 106 wherein each of the sources available to

supply values for the specified state attribute at a time of the receiving of the

request are unable to supply a value for the specified state attribute that satisfies

the specified criteria." (see sections 2.2, and 2.5).

With regard to claim 108:

As per "The method of claim106 wherein the detecting includes repeatedly

requesting at least one of the sources to supply a value for the specified state

attribute." (see sections 2.2, and 2.5).

With regard to claim 109:

As per "The method of claim 93 wherein the specified type of occurrence

includes a specified source becoming available to supply state attribute values,

and wherein the detecting includes determining that the specified source is currently able to supply state attribute values." (see sections 2.2, and 2.5).

With regard to claim 110:

As per "The method of claim 109 wherein the specified source is not available to supply state attribute values at a time of the receiving of the request." (see sections 2.2, and 2.5).

With regard to claim 111:

As per "The method of claim 93 wherein the specified type of occurrence includes a specified client becoming available to receive state attribute values." (see sections 2.2, and 2.5).

With regard to claim 112:

As per "The method of claim 111 wherein the detecting of the occurrence of the specified type is based on receiving a request from the specified client for a value of a state attribute." (see sections 2.2, and 2.5).

With regard to claim 113:

As per "The method of claim 93 wherein the specified type of occurrence includes at least one client expressing an interest in receiving values of a specified state attribute." (see section 2.4).

With regard to claim 114:

As per "The method of claim 93 wherein the computer has access to various devices, and wherein the specified type of' occurrence includes a value of one of the state attributes indicating that access to a specified device has

become available." (see section 2.2).

With regard to claim 115:

As per "The method of claim 93 wherein the specified type of occurrence

includes access to a group of themed attributes becoming available." (section

2.2-2.3).

With regard to claim 116:

As per "The method of claim 93 wherein the providing of the information

about the current state: is performed by a characterization module, and wherein

the specified type of occurrence includes it value of one of the state attributes

indicating that access to other functionality provided by the characterization

module has become available." (sections 4.2, and 5.2-5.3, fig. 1).

With regard to claim 117:

As per "The method of claim 116 wherein the other functionality is a

specified mediator." (sections 4.2, and 5.2-5.3, fig. 1).

With regard to claim 118:

As per "The method of claim 117 wherein the detecting of the occurrence

of the specified type is based on identifying software being loaded that when

executed will provide mediating for the specified mediator." (sections 4.2, and

5.2-5.3, fig. 1).

With regard to claim 119:

As per "The method of claim 93 wherein the request includes an indication

of a number of times that the notifying of the module is to occur." (sections 1.1-

2.2, and 4.2).

With regard to claim 120:

As per "The method of claim 93 wherein the request includes an indication

of times during which the notifying of the module is to occur." (sections 1.1-2.2,

and 4.2).

With regard to claim 121:

As per "The method of claim 93 wherein the state attributes represent

information about a user of the computer." (section 1.1).

With regard to claim 123:

As per "The method of claim 93 wherein the state attributes represent

information about the computer." (sections 1.1-2.2, and 4.2).

With regard to claim 124:

As per "The method of claim 93 wherein the state attributes represent

information about a physical environment." (Figs. 1-6).

With regard to claim 125:

As per "The method of claim 93 wherein the state attributes represent

information about a cyber-environment of a user of the computer." (section 5.3).

With regard to claim 127:

As per "The method of claim 93 wherein the notifying of the module of the

detected occurrence prompts the module to present information to a user of the

module." (sections 5.3, 6.2)

With regard to claim 128:

As per "The method of claim 93 wherein the notifying of the module of the detected occurrence includes supplying information about the detected occurrence." (section 1.3).

With regard to claim 129:

As per "The method of claim 93 wherein the request indicates an event such that an occurrence of the indicated event is an occurrence of the specified type." (sections 1.1-2.2)

With regard to claim 130:

Claim 130, while not necessary identical in scope, contains limitations similar to independent claim 133 and therefore is rejected under the same rationale.

With regard to claim 131:

As per "The computer-readable medium of claim 130 wherein the computer-readable medium is a memory of the computing device." (Fig. 1).

With regard to claim 132:

As per" The computer-readable medium of claim 130 wherein the computer-readable medium is a data transmission medium transmitting a generated data signal containing the contents." (section 6.3).

With regard to claim 133:

Bates discloses a computing device for providing information about a current state of the mobile user that is represented with multiple attributes, including user's location and nearby electronic devices.

Bates further includes a Middleware service (trader), a request receiver component that is capable of receiving from a client application (module) a request to receive notification when a specified type of occurrence related to at least one of the multiple state attributes is detected (Bates, sections 2.2, and 2.3).

Bates further describes that the Middleware service (trader) also includes a notifier component that is capable of, after the receiving of the request, detecting an occurrence of the specified type and notifying the module of the detected occurrence (Bates, sections 2.2, and 2.3, Fig. 1). Bates further describes the detecting is based at least in part on one or more values (e.g. values obtained from via badge and via video camera) of the at least one state attributes (e.g., John's whereabouts or location) and one meta-information for each of the one or more values that describe that value (e.g., proximity value obtained from camera are further described, section 4.2, paragraph 4)

With regard to claim 134:

As per "The computing device of claim 133 wherein the request receiver component and the notifier component are part of an intermediary module executing in memory of the computing device." (sections 2.2-2.3).

With regard to claim 135:

As per "The computing device of claim 133 further comprising multiple sources and multiple clients executing in memory of the computing device." (sections 5.2-5.3, figs. 5 and 6)

With regard to claim 136:

The claim is a computing device claim corresponds to claim 133, thus, is rejected under the same reasons given to the rejection of claim 133.

With regard to claims 151 and 154:

Bates also describes "additional information for each of the one or more values is metadata for the value." (e.g., describing attribute , section 4.2. paragraph 4).

With regard to claims 152 and 155:

Bates also describes "the additional information for each of the one or more values includes uncertainty information for the value." (e.g., describing proximate (uncertain) value, section 4.2).

With regard to claims 153 and 156:

Bates also describes "the additional information for each of the one or more values includes information related to one or more times at which the value is accurate." (sections 2.3 and 2.5).

With regard to claim 206:

Bates et al discloses a Middleware Support for Mobile Multimedia Applications. One of the middleware services offered is a *trader*. A *trader* is used to locate objects in an environment (see fig. 1, and section 5.2). The middleware support enables applications to follow mobile users as they move. The mobile user may carry a portable computer with built-in wireless network.

Bates further provides a method in this mobile device for providing

information about a context of the user that is modeled with multiple context

attributes, such as, nearest electronic equipment to the user, location of the user,

etc (see section 2.4).

Bates also describes the *trader* receives a request from a client

application (e.g., John or David, Fig. 4). The request may include interest in

receiving notification when a specified event that is related to at least one of the

context attributes occurs (Bates, section 2.2), the specified event based at least

in part on values of one or more of the at least one context attributes;

Bates also describes determining whether the first client (e.g., John or

David, Fig. 4) has access to values of the one state attributes (e.g., if a client is

register to one of information provider, location service a client may access the

system) (section 1.2.2).

Bates also describes based on the determination, monitoring (section 2.3)

for complex occurrence of information related to the at least one context

attributes for an indication of an occurrence of the specified event, such

monitoring for example includes to inform or notify the user (David) when his

friend (John) enters his room (sections 1.1 and 2.2, Figs. 4, 5).

With regard to claim 207:

Bates also describes "if the first client is not determined to have access to

the values of the state attribute, notifying the first client that notification of

occurrences of the specified event will not be provided." (sections 2.3 and 2.5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 122 and 126 and 146 rejected under 35 U.S.C. 103(a) as being

unpatentable over John Bates, et al., "Middleware Support for Mobile Multimedia

Applications," (1997) in view of Schmidt, et al., "There is more to context than location,"

(November 1998).

With regard to claims 122, 126 and 146:

While Bates discloses information reflecting the physical location of a

target user and a nearest electronic device to a target user, Bates does not show

information reflecting a modeled mental state of the user. Bates does not show

the state attributes representing current predictions about a future state, and

wherein the represented information reflects a modeled mental state of the user."

However, Schmidt et al discloses a plurality of sensory devices attached to a

computer including, among others, a sensor to reflect the mental state of the user

(Fig. 1, section 3.1).

Therefore, it would have been obvious to one having ordinary skill in the

art at the time of the invention was made to incorporate Schmidt's sensory

devices with Bates because incorporating a plurality of sensory devices will be

advantageous for a better understanding, modeling or representing of the user or

device.

Allowable Subject Matter

9.   Claims 62-70, 82-92, 137-145, 147-150, 157-198, and 200-205 are allowed:
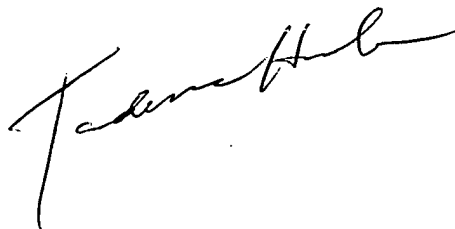
The following is an examiner's statement of reasons for allowance: The prior art

of records fails to teach the limitations of the above claims.

Conclusion

10.   Any inquiry concerning this communication or earlier communications from the

Examiner should be directed to Tadesse Hailu, whose telephone number is (571) 272-

4051. The Examiner can normally be reached on M-F from 10:00 - 630 ET. If attempts

to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, John

Cabeca, can be reached at (571) 272-4048 Art Unit 2173.

11.   An inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is

(703) 305-3900.

Examiner Tadesse Hailu
Art Unit 2173 – Operator Interface
2/11/05